

PHENIX WEEKLY PLANNING

11/30/06

Don Lynch

Ready for Commissioning

PHENIX END OF SHUTDOWN PARTY

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Celebrating the
successful
installation of the
HBD, TOF.W,
MPC.N, RXNP
detectors and the
completion of
shutdown work

Brought to you by
the HBD, TOF.W,
MPC.N, and RXNP
detectors

New Gas Systems

HBD and TOF W gas flow control systems are done.

HBD gas monitoring system installation ongoing



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HBD (Hadron Blow Drier) Electronics Cooling

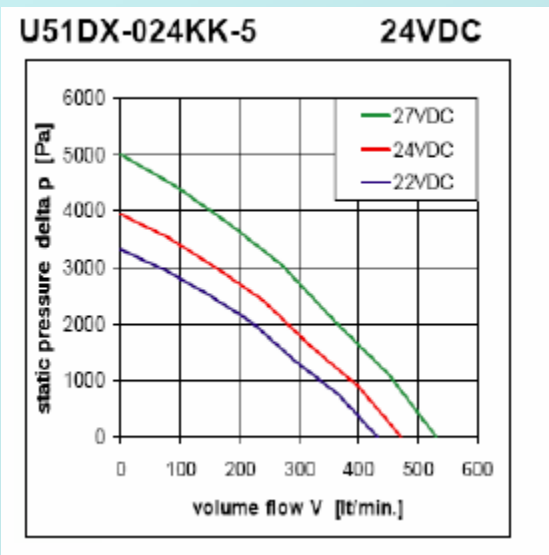


Still Needed for Approval to Operate:

- Where will fan(s) be mounted? - *CM base "cubby hole" fan model and specs to be forwarded to Safety*
- Written design and operation description and- *To be forwarded to Safety*
- Order for 5 blowers & drivers (4 +1 spare) is in the works

*Order in Process,
Finally ! Rec. ~ 2 weeks ?*

*Supposedly partially
shipped 11/27 no parts
rec'd yet*



Blower requirements:
5 cfm (142 l/min)
@ 5 in WC (1245 Pa)

RXNP Bad PMT replacement proposal

- Tools Needed
 - 1/2" and 3/4" black electrical tape
 - Scissors
 - Scalpel
 - RTV
 - Plastic cable ties (long and short)
 - Isopropyl alcohol
 - Kim wipes
 - Optical grease
 - Small hex screw driver
 - Gloves for RTV

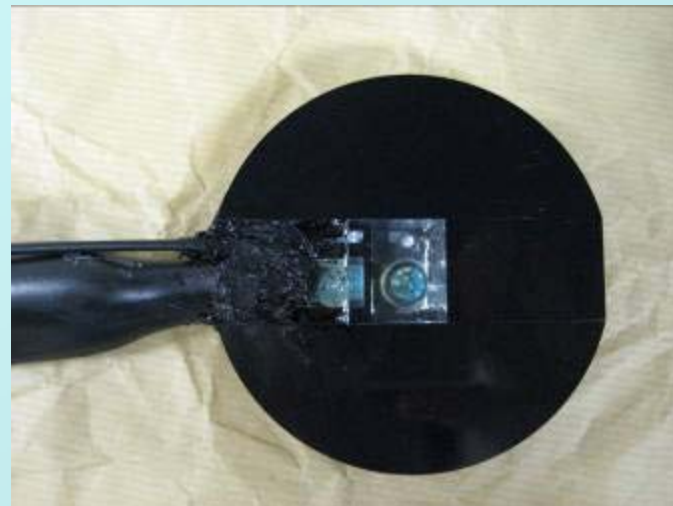
RXNP Bad PMT replacement proposal

- Label new PMT with tape
- Unconnect old PMT HV and signal cables
- Cut cable ties
- Remove RTV from prism cover gap with scalpel
- Unscrew prism cover and remove from PMT
- Remove black electrical tape connecting PMT and prism
- Detach PMT from prism
- Clean prism face with alcohol and wipes



RXNP Bad PMT replacement proposal

- Apply grease to prism and attach PMT
- Tape PMT to prism with black electrical tape (taping involves several steps to ensure light tightness, *difficult to perform with one person*)
- Attach prism cover and screw back on
- RTV prism cover gap
- Place PMT back on end of arm and secure with plastic ties



RXNP Bad PMT replacement proposal

OTHER THINGS

- Test for light tightness anywhere along the way?
- Recommend dry run on bench top with spare parts



RXNP Bad PMT replacement proposal



Problems with Proposed repairs

1. Only 1 person safely can work on the lift table
2. 3rd PMT from top is most difficult to replace. All 6 fiber bundles pass in front of this PMT.
3. The mounting rings on the PMT's are staggered to fit. 4th PMT would need to be dismounted in order to remove the 3rd PMT.
4. All of the steps Eric has outlined in his slides above would need to be done on the lift table.
5. Proximity to HBD east detector, cables and gas lines which are delicate.

CM Lift Table

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Proposal:

- High and low limit switches to prevent over-travel hitting HBD mounting I-beams and lower cable trays.
- Upper limit switch cuts out power to lift allows power to lower
- Lower limit makes audible alert. No need to cut out control.

(Professional hand model?)

Subsystem Maintenance & Repairs

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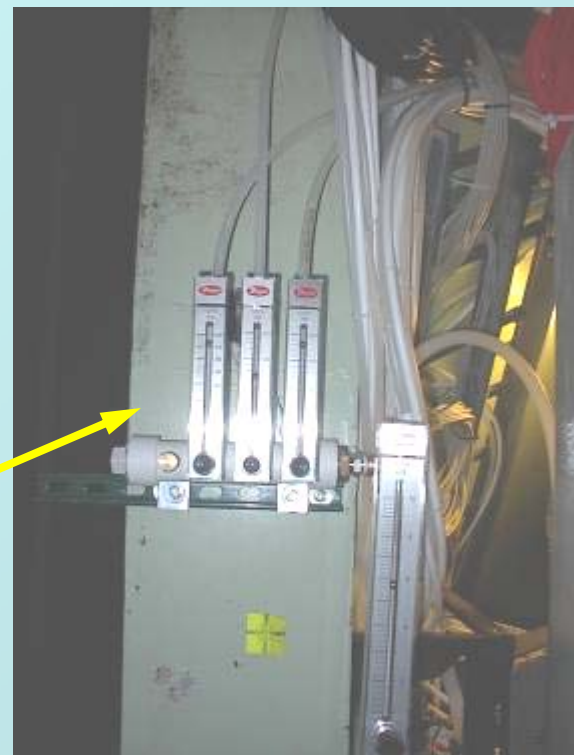
- EMCal West & East Done
- DC HV/LV patch panel upgrade & wire repair Done
- MPC South repaired
- BBC South & North repairs done
- MuTr grounding problems Fixed
- MuTr North and South HV/FEE troubleshooting ~ Done..Dry air distribution balancing done
- RICH light leak ~
- PC HV module/cable maintenance done
- TEC upgrades done
- MuID survey DONE !
- MuID commissioning next month after flammable gas is on



MuTr Dry Air Flow Distribution Upgrade



MuTr South
Flow Controls



MuTr North
Flow Controls

CAD/RHIC PHENIX infrastucture related
mechanical and electrical support

Roof leak repairs

MuID survey

Door Latch maintenance for security

Metals Dumpster

Run 7 prep support



Infrastructure Work

?

Done

Requested

Requested

On-going



Remaining Schedule

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	Start	Complete
TOF West, RXNP, MPC N		
Electronics Installation/Commissioning	in progress	12/30/06
HBD		
HBD preamp cooling system	10/1/06	12/15/06
(temporary LN2 system in-place)		
Electronics Installation/Commissioning	11/1/06	12/30/06
MuID survey	Done	Done
MuID commissioning	1/8/07	1/15/07



Remaining Schedule (cont'd)

Technical Support 2006

- Pink Sheeting & Blue Sheeting
- Move MMS full North
- Rebuild Rolling door
- Install beam pipe collar
- Close rolling door
- Start Flammable Gas Flow
- All Up Commissioning
- RHIC Cooldown Begins
- Beam in yellow ring
- Beam in blue ring
- RHIC beam conditioning
- Shutdown Concluded/Start of Physics Run

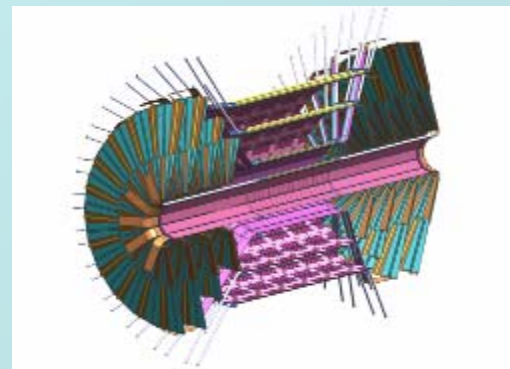
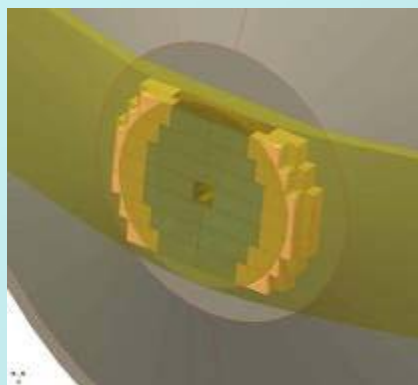
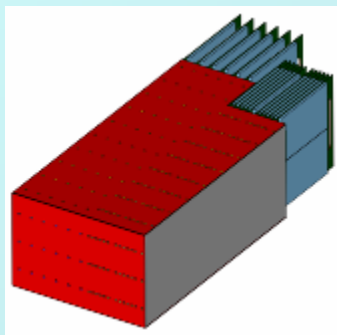
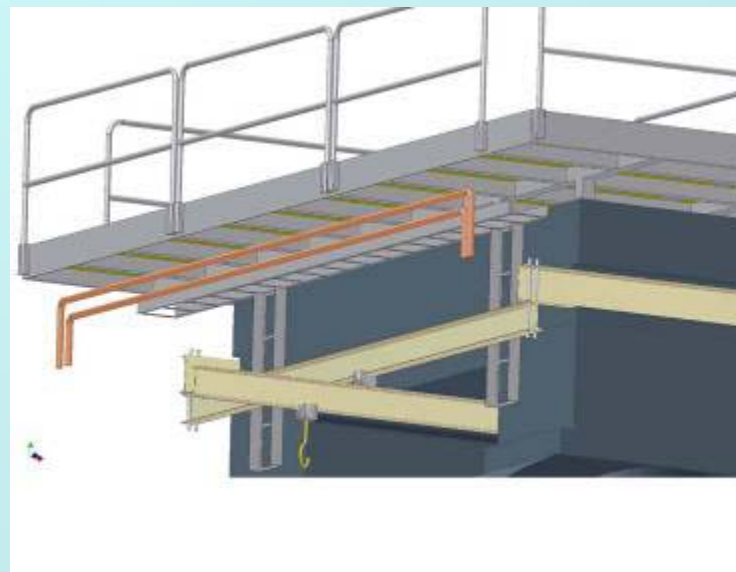


Start	Complete
Started	30-Nov
20-Nov	21-Nov
29-Nov	1-Dec
26-Dec	29-Dec
29-Dec	29-Dec
3-Jan	3-Jan
4-Jan	26-Jan
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9-Jan	9-Jan
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What's up for next year and beyond

- New CM Crane
- New Beam pipe design
- Muon RPC trigger design
- VTX/FVTX design
- NCC design
- MuTr upgrade ?
- Infrastructure improvements



SEU Test

John Lajoie Iowa State

Experimental Impact Statement

- The box dimensions are: 17" x 10" x 3.5".
- The only services required by the box in order to function are AC power and a Cat5 cable connected to the USB interface.
- The FPGA devices will be programmed and monitored over an external USB connection, which is run over a USB -> Cat5 extender box. This extender has a maximum range of 150 feet of Cat5 cable, which should be sufficient to reach from the PHENIX IR to the rack room, where it will connect to a laptop containing the analysis and configuration software. (The laptop will require network access, and will comply fully with all BNL cybersecurity requirements.)
- Because SEU events are relatively rare, it would be best to expose the apparatus to as high a particle flux as possible. However, the box represents a substantial amount of material and it would be unacceptable to place the box within the acceptance of the central arms. Placement within one of the muon arms, near or on the central magnet pole, would be optimal.

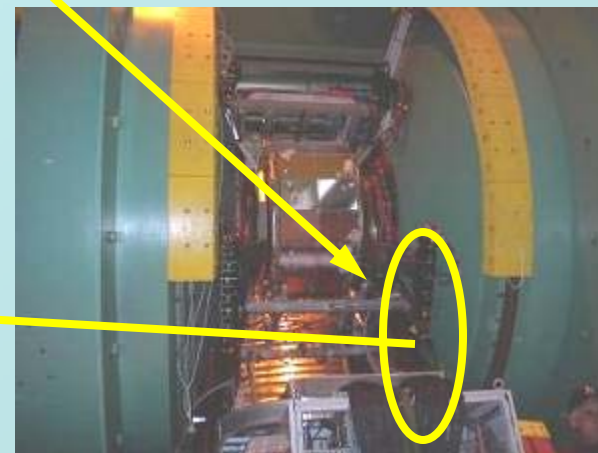
SEU Test

John Lajoie Iowa State

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Both boxes installed.
Approval request sent
to Yousef.



PHENIX Annual Safety Review Follow Up

- No major problems/no action items received from Yousef
- Provide as-built drawings and procedures for new gas systems (TOF W and HBD)- Rob finished drawings. Procedures in-progress
- Comprehensive review of PHENIX procedures, revise where necessary, retire where appropriate - Started

Next Week

- Complete Wall
- HBD, TOF W, RXNP, MPC N electronics commissioning
- PHENIX Procedure review
- Subsystem Commissioning
- Housekeeping

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Ready for Commissioning

PHENIX END OF SHUTDOWN PARTY

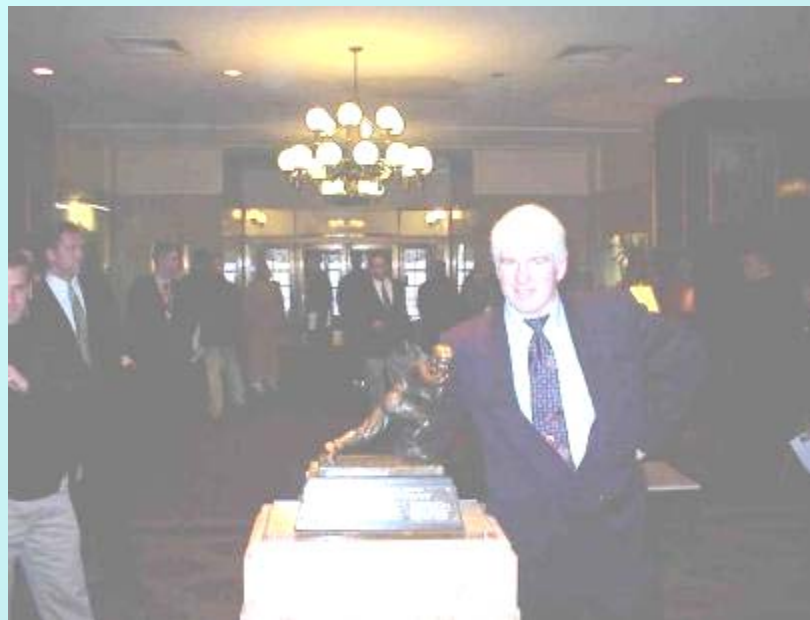
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Where To Find PHENIX Technical Info



Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm